

REMARKS

After entry of this response, claims 22, 29, 30, 36, 42, 43, 46, 47, 54, and 55 remain pending in the present application. No new claims have been added to the application. Applicants remain appreciative of Examiner's offer during the interview of May, 24, 2005, to rejoin the withdrawn and related method claims if pending claims are found allowable and would be happy to help identify the proper method claims to rejoin. Applicants requests reconsideration by the Examiner in light of the following remarks.

Claim Rejections

Swan '075 does not anticipate or make obvious claims 54 and 55.

The Examiner maintained the rejection of claims 54 and 55 under 35 U.S.C. § 102(b) or, in the alternative, under 35 U.S.C. § 103(a) as being anticipated or obvious over U.S. 4,414,075 to Swan et al. ("'075").

Applicants submitted evidence and arguments showing that the products formed by the processes described in claims 54 and 55 are structurally and patentably distinct over the products disclosed in the '075 reference. The Examiner maintains this rejection on the basis that the claims are not commensurate in scope with this evidence because structural features distinguishing the products formed by the processes of claims 54 and 55 are not presently claimed.

In the March 17, 2005, Final Office Action the Examiner shifted the burden to Applicants to show unobvious differences between the claimed products and the prior art products per In re Marosi. Applicants believe that they have met this burden with the arguments submitted in the August 17, 2005 response. Applicants provided several arguments distinguishing the structure of the products formed by the processes of claims 54 and 55 over the products disclosed in the '075

reference. The products of claims 54 and 55, wherein polymers “grow” from the immobilized reagent are structurally distinct from the products disclosed in the the '075 reference, wherein previously formed polymers are attached to an immobilized reagent.

MPEP § 2173.05(p) states that “[a] product-by-process claim, which is a product claim that defines the claimed product in terms of the process by which it is made, is proper.” Id. (citing In re Luck, 476 F.2d 650, 177 USPQ 523 (CCPA 1973); In re Pilkington, 411 F.2d 1345, 162 USPQ 145 (CCPA 1969); In re Steppan, 394 F.2d 1013, 156 USPQ 143 (CCPA 1967). The defining feature of a product-by-process claim is that the product is defined by the process by which it is made, not by structural limitations. See id. Such claims are allowed by the Patent Office to ease the burden on applicants in the event that the products to be claimed are not easily characterized by structural limitations. If Applicants were required to claim structural features in order to place claims 54 and 55 in condition for allowance, Applicants’ right to file product-by-process claims would be destroyed. Applicants respectfully contend, therefore, that the rejection of claims 54 and 55 because the claims do not contain structural features is improper.

Applicants believe that the arguments and evidence submitted in their August 17, 2005 response meets their burden under In re Marosi to show that the products of claims 54 and 55 have patentably distinct structure when compared to the products disclosed in the '075 reference. Applicants further contend that claims 54 and 55 adequately define these products without structural limitations. Therefore, Applicants respectfully request that the rejection of claims 54 and 55 over Swan '075 be withdrawn.

Swan '698 in view of Swan '075 does not render obvious claims 22, 29, 30, 36, 42, 43, 46, 47, 54, or 55.

The Examiner rejected claims 22, 29, 30, 36, 42, 43, 46, 47, 54, and 55 as being obvious over U.S. 6,077,698 to Swan ('698) in view of the '075. Swan '698, like Swan '075, discloses the immobilization of target molecules by reagents that are covalently attached to a surface. As just discussed regarding claims 54 and 55, the structural differences between products formed by a process of immobilizing a grafting reagent and initiating polymerization of monomers from the surface as in Applicants' claims, and products formed by immobilizing pre-formed polymers on a reagent attached to a surface as in the '075 and '698 Swan '698, are nonobvious and meet the requirements of In re Marosi.

The articles of the subject claims are patentably distinct in light of the articles of Swan '698 as modified by Swan '075 for at least the reasons that the articles of claims 54 and 55 are distinct over Swan '075 as just discussed. Swan '698 as modified by Swan '075 does not teach or suggest a support surface bearing a polymeric coating as in claims 22, 46, and 47; a porous support surface bearing a polymeric coating as in claims 29, 30, 54, and 55; or a device comprising a surface bearing a polymer coating as in claims 36, 42, 43. Further, the product-by-process claims distinctly claim and point out the invention without additional structural limitations. Applicants respectfully request that the rejection of claims 22, 29, 30, 36, 42, 43, 46, 47, 54, and 55 as being obvious over '698 in view of the '075 be withdrawn.

Swan '994 in view of Swan '698 and Swan '075 does not render obvious claims 54 and 55.

Claims 54 and 55 require a nonpolymeric grafting reagent having four photoinitiator groups attached to a nonpolymeric core molecule. The Office Action cites claim 28 of the '994

patent as disclosing such a species, but claim 28 only describes “a coating agent comprising *two or more* photoreactive species.” Column 31, Lines 2-3. The Office Action contends that claim 28 discloses “the coating comprising two photoreactive species wherein each photoreactive species include two photoreactive species.” Office Action of 10/12/05, paragraph 11.

Claim 28 of the '994 patent is written to contain Markush groups. The first clause of the claim claims “a coating agent comprising two or more photoreactive species . . . the coating agent selected from:.” The next two clauses of the claim describe alternative coating agents, each containing two or more photoreactive species. The claim is not directed toward a pair of photoreactive species each containing a pair of photoreactive species. The claim is directed to a agent with two or more photoreactive groups, the agent selected from one of two types of such agents.

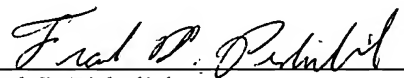
The claims contains the open ended language “two or more photoreactive species,” but does not require or claim four photoreactive species. This language does not anticipate or make obvious reagents with four photoreactive species. The reagents disclosed in the '994 patent all have fewer than four photoreactive groups. Therefore the cited references do not disclose or make obvious grafting reagents with four or more or surfaces formed using such reagents.

The combination of the '994 disclosure with the disclosure of porous surfaces from the '075 does not make the products of claims 54 and 55 nonobvious, at least because neither reference discloses or makes obvious applying a grafting reagent with four photoinitiator groups and a monomer solution to a surface in a manner, and under conditions, suitable to coat the surface with the grafting reagent and to cause the polymerization of monomers to the surface upon activation of the grafting reagent and the covalent attachment of the reagent to the surface.

In view of the foregoing, it is submitted that this application is in condition for allowance.
Favorable consideration and prompt allowance of the application are respectfully requested.

If the Examiner believes that an Examiner's amendment would put this application in condition for allowance or would like to discuss this submission for any reason, Applicants would welcome the Examiner's input and respectfully request a telephonic interview. The Examiner may contact the undersigned at (612) 492-7305 to schedule such an interview if necessary.

Respectfully submitted,



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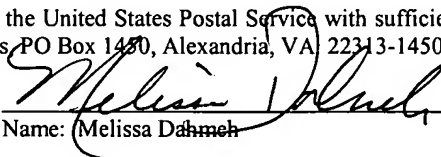
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